Electronic TUBES

6CY5

TETRODE

FOR VHF RF AMPLIFIER APPLICATIONS

DESCRIPTION AND RATING

The 6CY5 is a miniature sharp-cutoff tetrode designed for radio-frequency amplifier use in VHF television tuners. Features of the tube include high transconductance, high input impedance, and low interelectrode capacitances.

GENERAL

ELECTRICAL

Cathode—Coated Unipotential		
Heater Voltage, AC or DC	6.3 ±10%	Volts
Heater Current	0.2	Amperes
Direct Interelectrode Capacitances*		
Grid-Number 1 to Plate	0.03	μμf
Input	4.5	μμf
Output	3.0	μμf

MECHANICAL

Mounting Position—Any
Envelope—T-5½, Glass
Base—E7-1, Miniature Button 7-Pin

MAXIMUM RATINGS

DESIGN-MAXIMUM VALUES

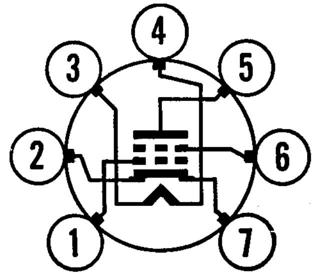
Plate Voltage	180	Volts
Screen-Supply Voltage	180	Volts
Screen Voltage—See Screen Rating Chart		
Positive DC Grid-Number 1 Voltage	0	Volts
Plate Dissipation	2.0	Watts
Screen Dissipation	0.5	Watts
DC Cathode Current	20	Milliamperes
Heater-Cathode Voltage		
Heater Positive with Respect to Cathode	100	Volts
Heater Negative with Respect to Cathode	100	Volts

Design-Maximum ratings are limiting values of operating and environmental conditions applicable to a bogey tube of a specified type as defined by its published data, and should not be exceeded under the worst probable conditions.

The tube manufacturer chooses these values to provide acceptable serviceability of the tube, taking responsibility for the effects of changes in operating conditions due to variations in tube characteristics.

The equipment manufacturer should design so that initially and throughout life no design-maximum value for the intended service is exceeded with a bogey tube under the worst probable operating conditions with respect to supply-voltage variation, equipment component variation, equipment control adjustment, load variation, signal variation, and environmental conditions.

BASING DIAGRAM

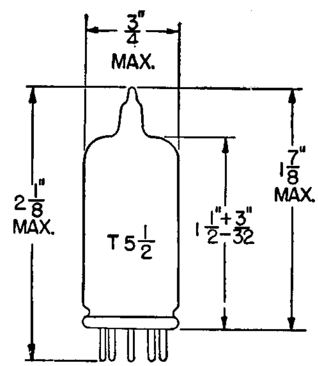


EIA 7EW

TERMINAL CONNECTIONS

Pin 1—Grid Number 1
Pin 2—Cathode and Internal Shield
Pin 3—Heater
Pin 4—Heater
Pin 5—Plate
Pin 6—Grid Number 2 (Screen)
Pin 7—Cathode and Internal Shield

PHYSICAL DIMENSIONS



EIA 5-2

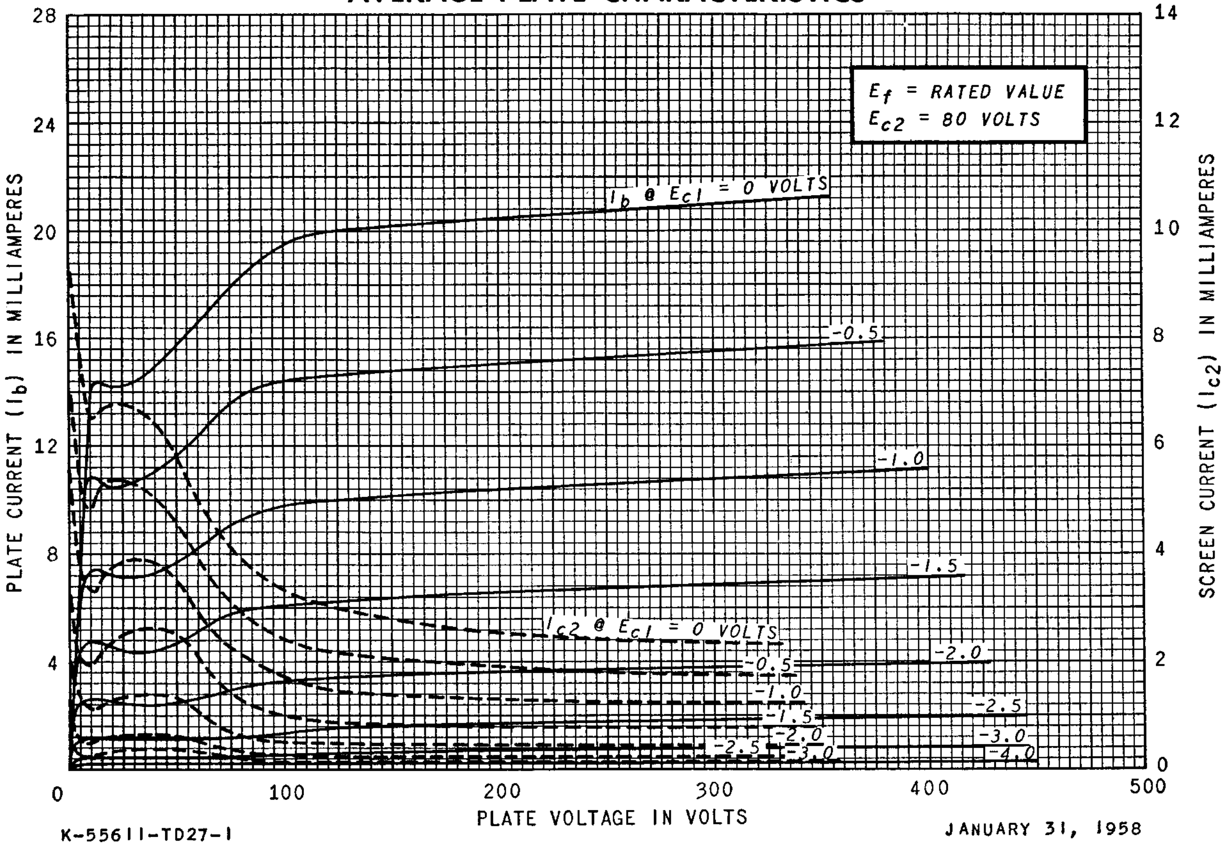
CHARACTERISTICS AND TYPICAL OPERATION

AVERAGE CHARACTERISTICS

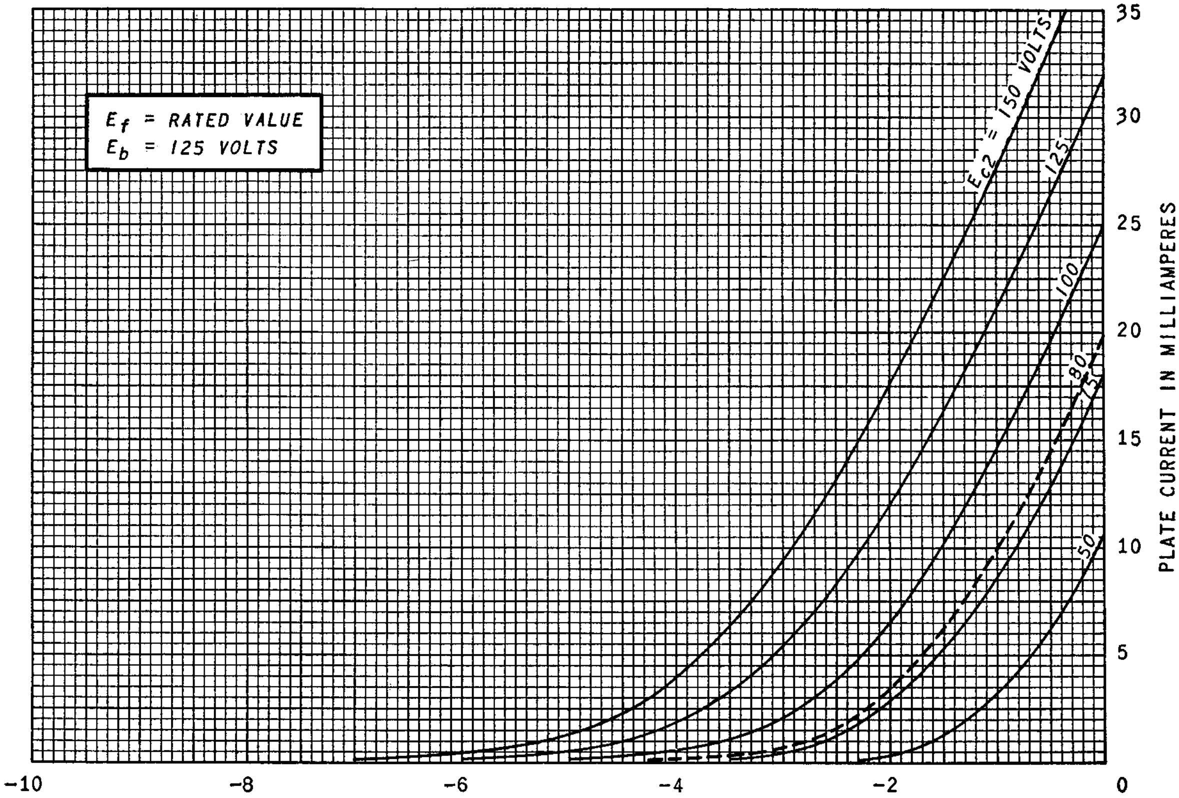
Plate Voltage	125	Volts
Screen Voltage	80	Volts
Grid-Number 1 Voltage	−1.0	Volts
Plate Resistance, approximate	100000	Ohms
Transconductance	8000	Micromhos
Plate Current	10	Milliamperes
Screen Current	1.5	Milliamperes
Grid-Number 1 Voltage, approximate Ib = 20 Microamperes	−6	Volts

* With External Shield (EIA 316) connected to Cathode.

AVERAGE PLATE CHARACTERISTICS

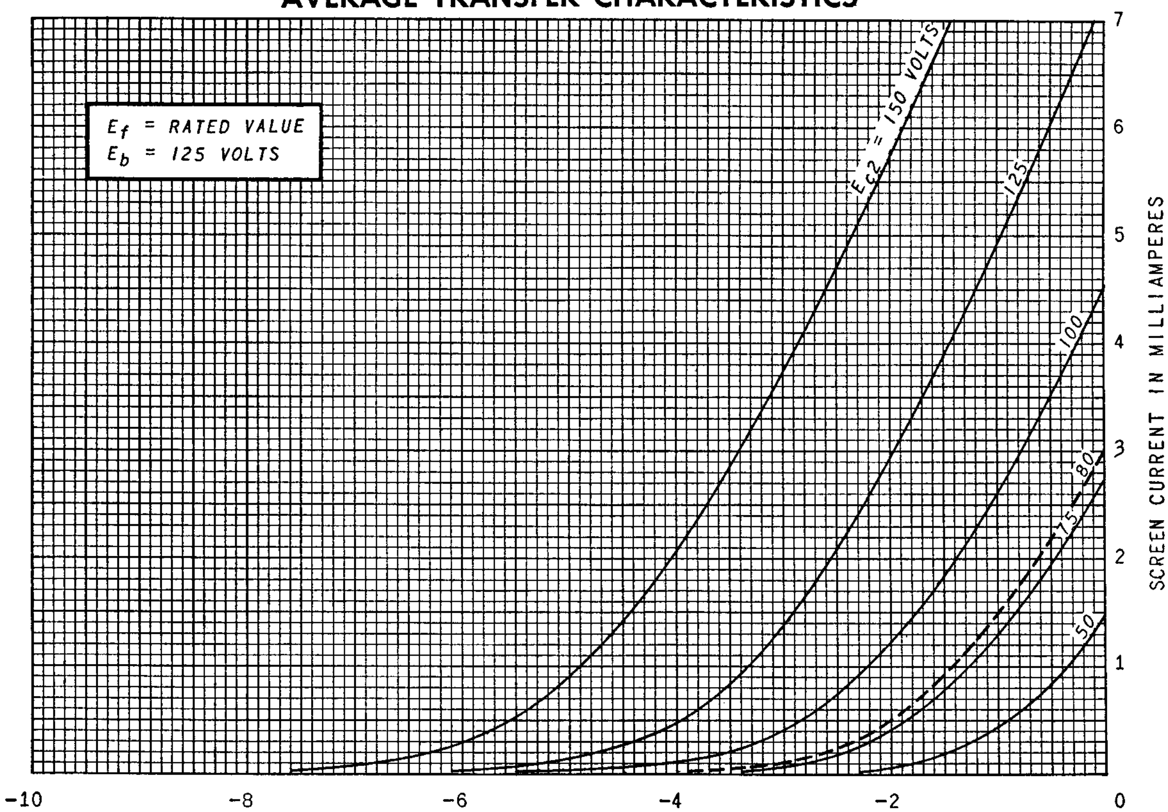


AVERAGE TRANSFER CHARACTERISTICS



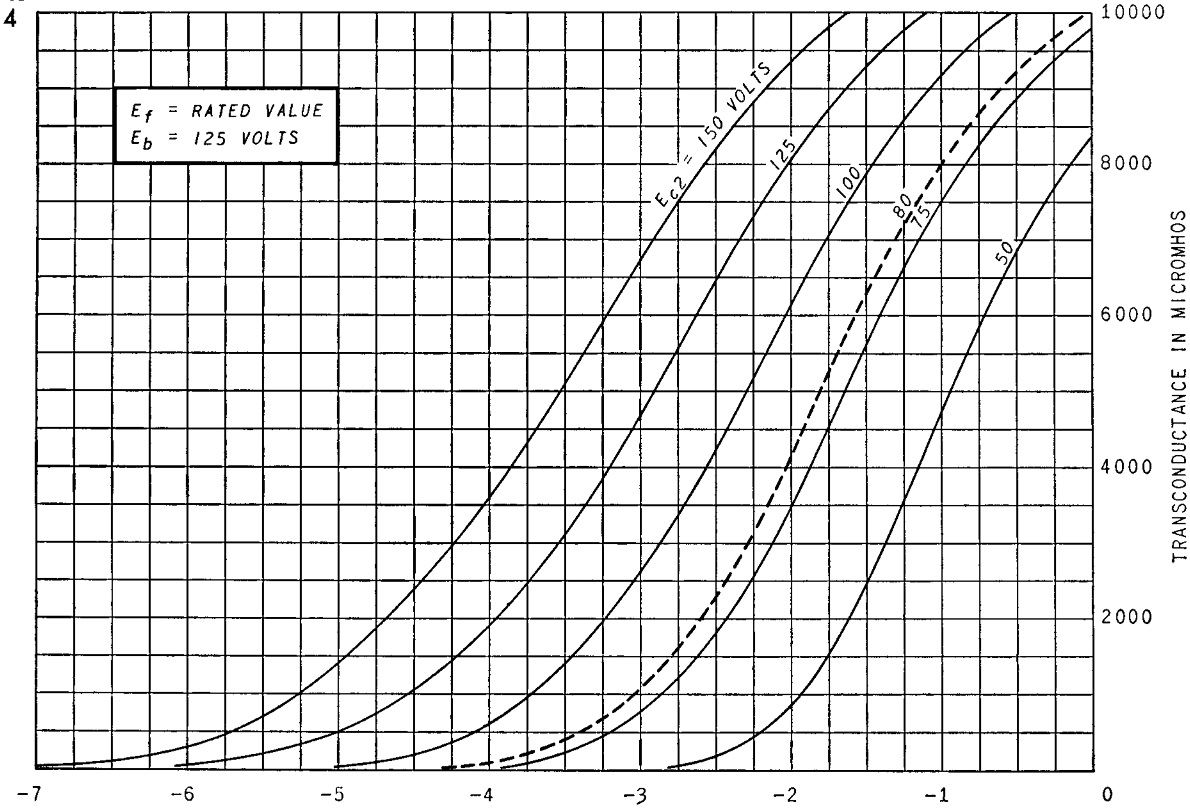
K-55611-TD27-2 JANUARY 31, 1958

AVERAGE TRANSFER CHARACTERISTICS



K-55611-TD27-3 JANUARY 31, 1958

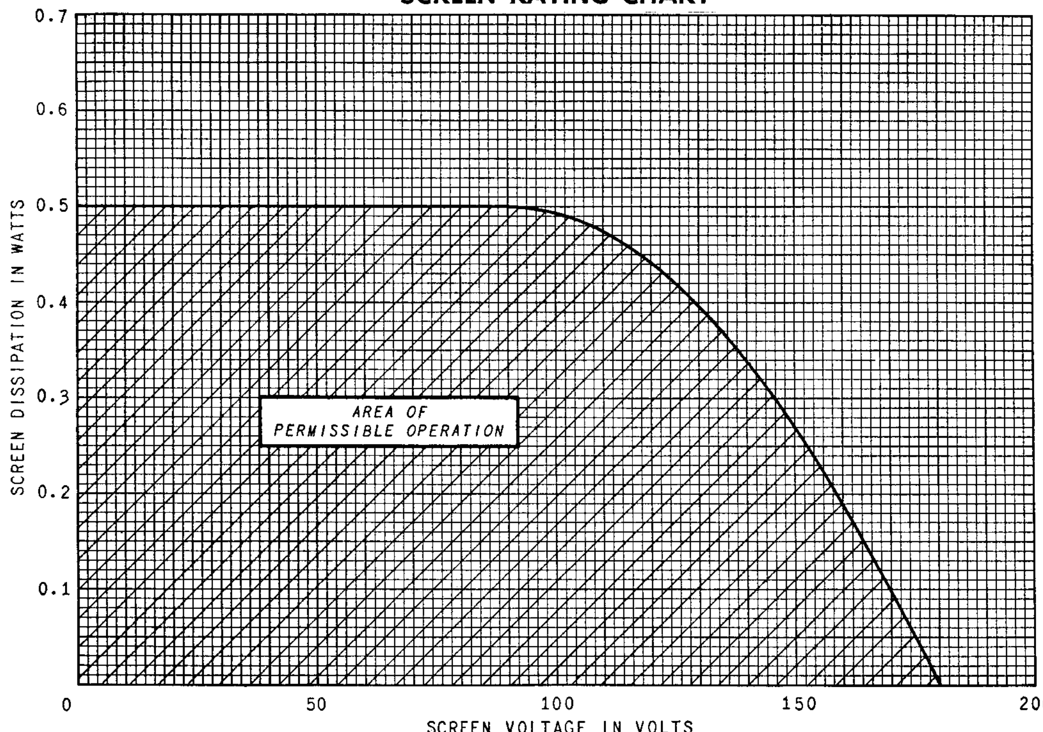
AVERAGE TRANSFER CHARACTERISTICS



K-55611-TD27-4

JANUARY 31, 1958

SCREEN RATING CHART



K-55611-TD27-5

JANUARY 31, 1958